

PROFESSIONAL ENGINEERING SERVICES CONTRACT

PROJECT NAME: Regional Water Supply – Desalination
PROJECT NUMBER: 17711A

THIS CONTRACT (the “Contract”) is made and entered into effective as of the 19th day of January 2021 (“Effective Date”) by and between the Port of Corpus Christi Authority of Nueces County, Texas (“Authority”), and Parsons Environment & Infrastructure Group Inc. (“Engineer”), each a “Party” and collectively as “Parties”.

NOW THEREFORE, in consideration of the promises and mutual covenants contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

1. CONTRACT: Authority hereby engages the Engineer and the Engineer hereby accepts its engagement for the purpose of providing to Authority the engineering services (“Services”) as are generally described in the “Scope of Services” set forth in Exhibit A to this Contract which is incorporated herein by reference. Engineering designs, reports, drawings and specifications prepared hereunder will be sealed by a Registered Professional Engineer licensed to practice in the State of Texas and in accordance with applicable provisions of the Texas Engineering Practice Act and Rules of the Texas Board of Professional Engineers.

2. PERIOD OF SERVICE: The Engineer shall complete the Services on or before December 31, 2021 (the “Deadline”), unless the Authority agrees to extend the Deadline for good reason; provided, however, that the Authority may terminate this Contract at any time in accordance with Section 14. Time is of the essence in performance of this Contract. There will be no obligation established between Authority and the Engineer for performance of the Services until Authority provides the Engineer with a written notice to proceed which shall be issued upon execution of this Contract and receipt by the Authority of appropriate Certificates of Insurance and other documentation as may be required herein. The term of this Contract (“Term”) shall begin on the Effective Date and shall end on the first to occur of the following: (1) the Deadline, as the same may have been extended by the Authority, (2) the date on which, in the opinion of Authority, all of the Services have been rendered, (3) the date on which this Contract is terminated by the Authority pursuant to Section 14, or (4) the date on which this Contract is terminated by the Engineer pursuant to Section 14.

3. COORDINATION OF SERVICES BY AUTHORITY: Authority shall designate a Project Representative who will, on behalf of Authority, coordinate with the Engineer and administer this Contract. It shall be the responsibility of the Engineer to coordinate all assignment-related activities with the Project Representative.

For the purposes of this Contract, the Project Representative shall be:

Sarah Garza
Director of Environmental Planning and Compliance

Port of Corpus Christi Authority
222 Power Street
Corpus Christi, Texas 78401
(361) 885-6163
E-mail: sarah@pocca.com

Authority may change the Project Representative at any time by giving the Engineer written notice of such change.

4. NOTICES: Notices, demands, requests or other formal communication related to the Contract shall be deemed to have been given when received, whether delivered personally or mailed. E-mail communications may be considered as formal notification provided the e-mail message states the message is intended as a formal notice and the receiving Party acknowledges receipt of the message as a formal notification. Notices shall be addressed as follows:

If to the Authority: Sean Strawbridge
Chief Executive Officer
Port of Corpus Christi Authority
222 Power Street
Corpus Christi, Texas 78401
E-mail: sstrawbridge@pocca.com

If to the Engineer: Randy Palachek
Vice President
Parsons Environment & Infrastructure Group Inc.
Phone: (512) 663-9590
E-mail: Randy.M.Palachek@Parsons.com

Either Party may change the mailing or E-mail address for notifications by providing written notice of such change to the other Party.

5. CHANGES: This Contract may be changed or modified at the request of either the Engineer or the Authority, provided both Parties agree to the requested change, and a written amendment or modification of this Contract is prepared and executed by the Parties.

5.1 Changes to Contract Requested by Engineer. Should an event or condition occur after notice to proceed that, in the opinion of the Engineer, will result in a change in scope, schedule and/or budget, the Engineer will provide timely written notice to the Authority stating: the nature of the event or condition; detailing the impact on scope, schedule and/or, budget; and providing the Engineer's recommendation or request for modification of the Contract. Such notice will be provided upon recognition of the event or condition and prior to the completion of the services stated in the Contract. The Authority will not consider a request for an increase in the compensation that is submitted after completion of the services stated in the Contract if the Authority determines, in its reasonable discretion, that the event or condition cited as the cause for the increase in the compensation was, or could

reasonably have been, known in time to submit a change request prior to completion of the services stated in the Contract. The Authority will review the Engineer's recommendation or request and provide a written response agreeing with the requested recommendation or request or not accepting said recommendation or request. Any changes or modification to the scope, schedule and/or budget will be detailed in a written modification to the Contract (Exhibit D - "Scope Change Request Form"). No changes to the Services shall be made by Engineer except with the Authority's prior written agreement.

6. ENGINEER'S RESPONSIBILITIES: In addition to all other obligations contained herein, the Engineer agrees, warrants, and represents that:

6.1 The Engineer will furnish all material, equipment, labor and supplies in such quantities and of the proper quality to professionally and timely perform the Services, except as otherwise mutually agreed by the Parties;

6.2 The Engineer shall perform the Services with the professional skill and care ordinarily provided by competent engineers practicing in the same or similar locality and under the same or similar circumstances and professional license;

6.3 The Engineer will comply with the provisions of all federal, state, and local laws, regulations, ordinances, requirements and codes which are applicable to its performance of Services;

6.4 The Engineer is not and will not be bound by any agreement and has not assumed nor will assume any obligation which would, in any way, restrict its ability to perform the Services or be inconsistent with the Services;

6.5 In performing the Services, the Engineer will not use any third party's confidential or propriety information, or infringe the rights of another party, nor will the Engineer disclose to the Authority, or bring onto the Authority's premises, or induce the Authority to use any third party's confidential or proprietary information;

6.6 The Engineer does not have the authority to act for the Authority, bind the Authority in any respect, or incur any debts or liabilities in the name of or on behalf of the Authority, except as otherwise expressly authorized in writing by the Authority;

6.7 Engineer's Opinions of probable cost or other forms of cost estimates will be based on the Engineer's experience, the design, and current market conditions to the extent practicable. Authority hereby acknowledges that Engineer cannot warrant that estimates of probable cost provided by Engineer will not vary from actual market prices obtained by Authority;

6.8 Engineer is an independent contractor for the performance of his duties under this Contract. Accordingly, the Engineer shall be responsible for payment of all taxes including

federal, state and local taxes arising out of the Engineer's activities in accordance with this Contract. Engineer is responsible for payment of the compensation, including any withholding, Social Security, or other taxes on such compensation, of any subcontractors retained by Engineer, or Engineer's employees performing work on the Project;

6.9 Engineer has and hereby retains full control of any supervision over the Engineer's obligations hereunder and over any persons employed or subcontracted by the Engineer for performing Services hereunder;

6.10 Engineer will in no way be considered an agent, partner, joint venturer, or employee of Authority at any time during the Term. Engineer will only render advice to Authority and will not undertake to commit Authority to any course of action in relation to a third party unless expressly requested and authorized to do so by the Authority in writing.

6.11 As of the Effective Date and at all times while providing Services hereunder, the Engineer shall possess and maintain in good standing any and all licenses or other authorizations and approvals necessary to perform the Services consistent with its status as an independent contractor and in compliance with all applicable laws and regulations;

6.12 Engineer may, with prior written approval of Authority, use representations of designs or other engineering services provided hereunder for promotional purposes. Authority reserves the right to review and approve, in advance of any publication or use, promotional materials containing reference to or images related to the work produced under this Contract.

7. COMPENSATION: The compensation to be paid Engineer for providing the Services shall be the compensation described in Exhibit B hereto, which is incorporated herein by reference; provided, however, the total paid to Engineer for the Services shall not exceed **One Hundred Forty-Nine Thousand Dollars (\$149,000)**. Engineer will obtain the approval of Authority's Project Representative relative to incurring travel and other expenses before incurring such costs.

8. INVOICE PROCEDURE AND PAYMENT: Engineer shall submit invoices monthly to the Authority for work performed during the preceding calendar month. Such invoices shall be due and payable by Authority on or before thirty (30) days from receipt by Authority. Monthly compensation will be for the Services actually performed during the billing period, invoiced in accordance with the Fee Schedule included in Exhibit B. Invoices shall also describe any work performed by subcontractors retained by Engineer and reimbursable costs. Subcontractor cost mark-up shall not exceed five percent (5%). Engineer will provide sufficient detail with each invoice to substantiate the requested amount of monthly payment. At the Authority's request, Engineer will provide additional backup such as signed time sheets, invoices for materials and subcontracted service or other documentation sufficient to establish the accuracy of the invoices. Invoices are to be submitted in a format previously approved by Authority.

Engineer will provide written notice to Authority when the sum of previous payments and its current invoice meet or exceed 70% of the approved compensation under the Contract.

Engineer will include a statement that the remaining budget is sufficient to complete the services or provide an estimate of cost to complete including an explanation of the need for additional funding and a request for a modification to the Contract (Exhibit D – “Scope Change Form”).

9. INSURANCE: Engineer shall procure and maintain at its sole expense, for as long as Engineer is obligated to provide Services under this Contract, the policies of insurance described in Exhibit C attached hereto and in at least the minimum amounts specified in Exhibit C to protect Engineer from claims which may arise out of or result from Engineer’s Services pursuant to this Contract, whether such operations be by Engineer, by any subcontractor of Engineer, by anyone directly or indirectly employed by Engineer or Engineer’s subcontractor, or by anyone for whose acts Engineer or Engineer’s subcontractor may be liable. At least five (5) days prior to execution of this Contract, Engineer will provide to Authority’s Risk Program Manager certificates of insurance issued by each insurance company providing any of the required insurance coverage, and the text entered in each certificate must be acceptable to Authority. The requirement to provide acceptable certificates of insurance is a material condition of this Contract, and work under this Contract will not commence until certificates of insurance have been received, reviewed, and accepted by Authority. The minimum limits of liability and coverage for the insurance required are set forth in Exhibit C attached hereto, which is incorporated herein by reference.

10. INDEMNIFICATION AND RELEASE. Engineer hereby releases and discharges Authority and its agents, servants, representatives, employees, officers, directors, and Port Commissioners (collectively, the “Authority Parties”) from liability for and assumes the risk of loss or damage to the property of Engineer and the injury or death of any person employed by Engineer. To the fullest extent permitted by law, Engineer shall indemnify and hold harmless the Authority Parties from all damages, losses, costs and expenses, of any nature whatsoever, whether incurred as a judgment, settlement, penalty, fine or otherwise (including reasonable consultants’ and attorneys’ fees) (collectively “Damages”) arising from third-party claims or actions relating to this Contract, but only to the extent caused by or result from an act of negligence, intentional tort, intellectual property infringement, or failure to pay a subcontractor or supplier committed by the Engineer or the Engineer’s agent, consultant under contract, or another entity over which the Engineer exercises control. The Engineer is not obligated under this paragraph to indemnify the Authority Parties for the negligent acts of the Authority Parties.

Engineer’s indemnity obligations under this Section 10 shall not be limited by a limitation on the amount or type of damages, compensation or benefits owed by Engineer to any employee of Engineer under workers’ or workmen’s compensation acts, disability benefit acts, or other employee benefit acts. The obligations of the Engineer under this Section 10 shall survive the end of the Term of the Contract.

11. LIMITATION OF LIABILITY: Except as otherwise expressly provided herein, neither Party shall be liable or responsible to the other Party for any indirect, incidental or consequential loss or damage of any nature whatsoever (including, but not limited to, contract, negligence or tort liability) of the other Party, including without limitation, any actual or

anticipated profits, loss of time, inconvenience, commercial loss or any other damages, even if the Party has advance notice of the possibility of such damages.

12. DISCLOSURE OF INTERESTED PARTIES: Engineer will comply with the provisions of Section 2252.908 of the Texas Government Code and Chapter 46 of the Texas Ethics Commission Rules by preparing a Texas Form 1295, "Certificate of Interested Parties" and submitting the signed form to Authority at the time Engineer submits the signed contract to Authority. This provision will only apply to contracts approved by the Port of Corpus Christi Authority Port Commission.

13. ASSIGNMENT: Neither Authority nor Engineer will assign or transfer its interest in this Contract without the written consent of the other.

14. SUSPENSION OR TERMINATION: Authority may suspend or terminate this Contract for convenience with seven (7) days prior written notice to Engineer of such action. Upon termination of this Contract in accordance with this paragraph, Authority will have no further obligation to the Engineer hereunder except to pay the Engineer unpaid fees and expenses which the Engineer can reasonably show to have been earned under this Contract. **Under no circumstances may Engineer claim or recover consequential damages from Authority.**

In the event of suspension of Services, the Engineer shall resume the full performance of the Services when directed in writing to do so by Authority. Suspension of the Services for reasons other than the Engineer's negligence or failure to perform shall not affect the Engineer's compensation as provided for in this Contract. The schedule for performance of the Services shall be amended by a mutually agreed, written modification to this Contract to reflect the suspension.

Either Party may terminate this Contract by giving written notice to the other Party if the other Party ("Defaulting Party"): (a) materially breaches any term, condition or provision of this Contract and fails to cure the breach to the reasonable satisfaction of the notifying Party within ten (10) days (or begin to cure the breach if such breach is incapable of being cured within 10 days) after the Defaulting Party receives a written notice of the breach from the notifying Party, or (b) becomes the subject of any proceedings under state or federal law for the relief of debtors or otherwise becomes insolvent, or bankrupt, or makes any assignments for the benefit of one or more creditors.

15. DISPUTES: Each Party agrees that any dispute between the Parties relating to this Contract will first be submitted in writing to a panel of two senior executives of the Authority and Engineer, who shall promptly meet and confer in an effort to resolve such dispute through good faith consultation and negotiation. Each Party's executive shall be identified by notice to the other Party, and may be changed at any time thereafter also by notice to the other. Any decisions of the executives will be final and binding on the Parties. In the event the executives are unable to resolve any dispute within thirty (30) days after submission to them, either Party may then refer such dispute to mediation.

If the Parties refer to mediation any controversy or claim arising out of or relating to this Contract or the existence, validity, breach or termination thereof, whether during or after its term,

they shall select a mutually acceptable mediator within forty-five (45) days thereafter. Neither Party shall unreasonably withhold consent to the selection of a mediator. The Parties shall share equally the costs of mediation. If the Parties agree, they may substitute other forms of alternative dispute resolution. Any mediation shall not extend beyond thirty (30) days after the appointment of the mediator, and should the Parties fail to resolve any dispute by mediation within such 30-day period, the Parties shall have all rights available at law or in equity.

16. ATTORNEY'S FEES, DEFAULT: In the event Engineer or Authority breach any of the terms of this Contract and the Party not in default employs attorneys to protect or enforce its rights hereunder and prevails, then the defaulting Party agrees to pay reasonable attorney's fees and costs incurred by the prevailing Party.

17. STAFFING: Engineer will designate in writing to Authority its project representative, and the manner in which it will provide staff support for the project, which must be approved by Authority. Engineer must notify Authority's Project Representative of any change in personnel assigned to perform work under this Contract, and the Authority's Project Representative has the right to reject the person or persons assigned to fill the position or positions. The Authority's Project Representative shall also have the right to require the removal of the Engineer's previously assigned personnel, including Engineer's project representative, provided sufficient cause for such removal exists. The criteria for requesting removal of an individual will be based on, but not limited to, the following: technical incompetence, inability to meet the position's qualifications, failure to perform, poor attendance, ethics violation, unsafe work habits, or damage to Authority or other property. Upon notice for removal, Engineer shall replace such personnel with personnel substantially equal in ability and qualifications for the positions and shall submit the proposed replacement personnel qualification and abilities to the Authority, in writing, for approval.

18. OWNERSHIP OF WORK PRODUCT: Studies, plans, reports, surveys, drawings, specifications, computations and other information (collectively "Work Product") and documents prepared by the Engineer, subconsultants, and/or suppliers under this Contract will remain the Authority's property upon completion. This provision does not apply to pre-existing proprietary information of Engineer, subconsultants, and/or suppliers.

19. CONFIDENTIAL INFORMATION: It is understood that information developed by or communicated to Engineer in the performance of this Contract, as well as any and all information in whatever form or medium supplied to Engineer in connection herewith which is not generally available to the public is proprietary to the Authority and constitutes confidential information of the Authority. Engineer will make no oral or written disclosure of such information to third parties either during or after the term of this Contract, except as approved in writing by the Authority's Project Representative or as otherwise required by law. In the event the Engineer becomes aware that confidential information must be disclosed under a legal requirement, Engineer will notify Authority of the requirement and the affected information.

20. FORCE MAJEURE: Neither Party shall be considered in default in the performance of its obligations hereunder to the extent that the performance of such obligation is delayed by any cause beyond the reasonable control of the affected Party. In the event of such a delay, the time for performance for the affected Party shall be extended for a period equal to the time lost during

the delay, or the Contract may be terminated in accordance with terms herein should such delay be sufficient that termination is in the best interest of the Authority.

21. SEVERABILITY and WAIVER: If any part of this Contract is held to be invalid, illegal, or unenforceable in any respect, such determination shall not affect any other provision of this Contract, and this Contract shall then be construed as if the invalid, illegal, or unenforceable provision had not been included in this Contract. Further, the failure of either Party in any one or more instances to insist upon strict performance of any of the terms and provisions of this Contract or to exercise any option herein conferred shall not be construed as a waiver or relinquishment to any extent of the right to assert or rely upon any such terms, provisions or options on any future occasion.

22. GOVERNING LAW: This Contract shall be governed by and construed in accordance with the laws of the State of Texas. The Parties agree that venue of all claims and lawsuits arising out of this Contract shall lie in Nueces County, Texas.

23. OPEN RECORDS: The Authority is a governmental body subject to the requirements of the Texas Public Information Act (Texas Government Code, chapter 552), and as such the Authority is required to disclose to the public (upon request) this Contract and certain other information and documents relating to the consummation of the transactions contemplated hereby. In this regard, the Engineer agrees that the disclosure of this Contract or any other information or materials related to the consummation of the transactions contemplated hereby to the public by the Authority as required by the Texas Public Information Act or any other applicable law will not expose the Authority (or any party acting by, through or under the Authority) to any claim, liability or action by the Engineer.

24. NO ORGANIZATIONAL CONFLICT OF INTEREST: Engineer hereby certifies that it has no actual or potential Organizational Conflict of Interest. "Organizational Conflict of Interest" means that because of other activities or relationships with other persons or entities, the Engineer is unable or potentially unable to render impartial assistance or advice to Authority or the Engineer's objectivity in performing the services under this Contract is or might otherwise be impaired. Engineer agrees to immediately notify Authority of any actual or potential Organizational Conflict of Interest that develops during the term of this Contract. Engineer agrees that Authority may terminate this Contract immediately if it becomes aware of any Organizational Conflict of Interest during the term of the Contract.

25. SECTION 2271.002, TEXAS GOVERNMENT CODE: To the extent required by Section 2271.002, of the Texas Government Code, Engineer represents that Engineer does not boycott Israel and will not boycott Israel through the term of this Contract. For purposes of this representation, "boycott Israel" means refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations specifically with Israel, or with a person or entity doing business in Israel or in an Israeli-controlled territory, but does not include an action made for ordinary business purposes.

26. DEFAMATION: The Parties covenant and agree that in no event, and at no time during the Term or at any time thereafter, shall either of them disparage, denigrate, slander, libel or otherwise defame the other or the other's businesses, services, properties or assets, or employees, personnel, agents, or representatives.

27. HEADINGS: All Section headings or other titles used in this Contract are used solely for convenience and shall not affect or be used in connection with the interpretation or construction of this Contract.

28. ENTIRETY OF CONTRACT: This writing embodies the entire Contract and understanding between the Parties hereto, and there are no other contracts or understandings, oral or written, between them with reference to the subject matter hereof that are not merged herein and superseded hereby. No alteration, change, or modification of the terms of this Contract shall be valid unless made in writing and signed by both Parties hereto.

[Signature page follows this page]

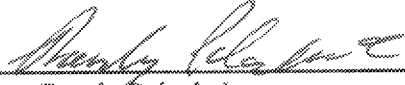
IN WITNESS WHEREOF, this Contract is made effective as of the January 19, 2021.

**PORT OF CORPUS CHRISTI AUTHORITY OF
NUECES COUNTY, TEXAS**

By: _____
Name: Sean Strawbridge
Title: Chief Executive Officer
Date: _____

“Authority”

**PARSONS ENVIRONMENT &
INFRASTRUCTURE GROUP INC**

By: 
Name: Randy Palachek
Title: Vice President
Date: 1-13-21

“Engineer”

EXHIBIT A

SERVICES

The Engineer will perform the following services in accordance with the terms and conditions set forth in this Contract:

Scope of Work

Task 1 – Document Review & Antidegradation Memo

Engineer will review prior modeling study – *Desalination Brine Discharge Modeling – Corpus Christi Bay System*, and all permit application documents as necessary to become familiar with details of proposed plant.

Engineer will complete anti-degradation review for existing Texas Commission on Environmental Quality (TCEQ) Texas Pollutant Discharge Elimination System (TPDES) individual permit application and prepare a supporting memo.

Task 2 - Alternative Brine Disposal Evaluation

Engineer will then identify viable brine disposal options for the facility including brine disposal in the Alcoa Copano Mud Beds, deep injection wells, commingled effluent with nearby facilities, reduced discharges to Corpus Christi bay, or a combination of these or other identifiable disposal solutions.

As a part of this task, Engineer will:

- Evaluate requirements for beneficial reuse of brine for mud lake treatment;
- Evaluate application of TCEQ rules (30 Part 1 Chapter 331 Subchapter L) related to General Permit for Class I Injection Well for Nonhazardous Desalination Concentrate or Nonhazardous Drinking Water Treatment Residuals;
- Evaluate existing deep injection wells in the vicinity along with existing geological formation knowledge at the proposed site to determine potential suitability for their use;
- Develop an Alternative Ranking Matrix to evaluate above disposal options, including cost to complete;
- Develop backup evaporative treatment/discharge scenario that would overflow to Port Bay via the decant pond during extreme weather events, predict decant pond discharge flow and salinity; and
- Develop temporary desalination facility discharge scenario to Corpus Christi bay for extreme weather events.

A draft and final Alternative Brine Disposal Evaluation report will be prepared evaluating the Alcoa Copano Mud Beds, Injection Wells, Commingled wastewater from nearby facilities, and direct discharge. A recommendation for a selected strategy will be presented along with Level 4

Cost Estimates. The report will include drawings, additional technical information, and evaluations to support the inclusion of the final brine disposal strategy into the permit application and include consideration of the results from Task 3.

Task 3 – Copano Mud Beds Feasibility and Treatability Study for RO Reject Disposal

The Alcoa Copano Mud Beds are the disposal site for the “Red Mud Tailings” that is comprised of the residue from the processing of ore at the Former Sherwin Alumina facility. This residue requires further neutralization and the addition of salt concentrate or brine can facilitate this neutralization. Engineer will determine available volume in Copana Alcoa Mud Beds to determine potential for treatment and disposal.

Engineer will use available topographical surveys to calculate available freeboard volume, estimate dead storage volume, and capacity to perform under extreme rainfall events, including tropical storm or hurricane.

Engineer will calculate available evaporative treatment capacity in Alcoa Red Mud Beds for continuous flow of RO reject to achieve a zero-discharge condition. Estimate expected duration that RO Reject could be discharged based on current available storage volume (minus freeboard) and the effectiveness of evaporative losses.

Engineer will obtain pipeline integrity assessment report from Authority to evaluate wall thickness, geometry, and remaining life of the existing 16” pipelines and the intra-basin transfers between Red Mud Beds 1, 2, 3, and 4. Pipeline integrity will be determined along the length of each pipeline using an in-line inspection tool (aka smart pig). The Integrity assessment should inspect pipe wall thickness, presence of corrosion and/or erosion, uniformity of cross-sectional geometry, identified repairs or pipeline sections that have been replaced, locations and/or states of cathodic protection anodes, and longitudinal elevations (slope).

Engineer will calculate the allowable pressure and flow rate of RO Reject water that can be conveyed in the pipelines. If insufficient flow rate capacity exists, determine cost/benefit of retrofits, such as an internal liner, to improve flow rate or if a replacement or an additional pipeline would meet the objective of reliable flow conveyance of RO Reject to the Red Mud Beds. Consider redundancy of RO Plant as a consideration if additional pipeline is used.

Engineer will conduct Phase 1 treatment investigation activities, including the following:

- Determine if there is beneficial outcome to the mixing of varying proportions of RO Reject stream and red mud sediment that is currently stored at the Alcoa Copano Mud Beds;
- Collect one (1) representative composite sediment sample from Red Mud Bed 1, Bed 2, 1 sample composed of a 50:50 split of representative Red Mud Bed 3 and Bed 4, and finally, one representative sample of the decant pond that currently discharges into Port Bay;
- Coordinate access and collect the representative samples and transport them to approved treatability laboratory. Engineer’s EPA-Registered Laboratory in Syracuse supports process development, design, and operational support / troubleshooting for projects for

sediment, leachate, remedial construction, groundwater and industrial wastewater and requires final approval for this purpose from Alcoa which approval will be facilitated by Authority;

- Contract an accredited laboratory to perform analytical analyses for the treatability work; and
- Determine the efficacy of RO brine reject and what proportions represent the best overall outcome for the objectives.

Engineer will conduct Phase 2 treatment investigation activities, including the following:

- Optimize RO-reject discharge ratios to the Red Mud Bed sediments for best treatment considering any desal plant constraints and discharge requirements.

Engineer will prepare a Technical Report summarizing Phase 1 and 2 treatment investigation activities and provide in draft and final forms. Engineer will summarize the findings from the pipeline integrity assessment review of documents provided, a site visit to review storage volumes of each of the Red Mud Beds, visual physical condition of assets (pumps and pipelines) and a list of items needed to enable discharge of the RO Reject to the Red Mud Beds. The report will also summarize findings from initial treatability results and include text, tables, general figures, and photographs. It will not include drawings or specifications. Engineer will summarize findings and costs for optimizing mixture of RO Reject and Red Mud Bed sediments and acceptable discharge volumes considering any desal plant constraints and discharge requirements.

Task 4 - Updated Permit Discharge and Technical Information

Engineer will supplement the existing TCEQ TPDES individual permit application with additional information related to the final recommendations for alternative brine management strategy.

Engineer will evaluate internal and external final outfall configurations and sampling locations based on the recommended brine management strategy and any modifications to the basis of design report or reverse osmosis treatment.

Engineer will evaluate and finalize any stormwater outfalls and watersheds contributing to each outfall.

Engineer will evaluate the intake water quality and treatment levels to develop an expected characterized range of discharge levels for key parameters.

Engineer will collect, summarize, and evaluate existing water quality data from TCEQ Surface Water Quality Monitoring Network and other related water quality data in the vicinity of the proposed discharge.

Engineer will meet with TCEQ and Authority, as necessary related to the above items.

The deliverable for this task will depend on selection of the Alternative Brine Management Strategy. It is anticipated that additional information such as a selection report and related sketches or drawings and flow information will be provided to the TCEQ for inclusion into the permit application. These changes may cause some changes to internal and or external configurations and sampling locations to meet TCEQ guidelines. These changes may also affect what is present in selected watersheds or stormwater outfalls and these will be adjusted as required due to brine management strategy. In addition, if further evaluation of the intake water chemistry and treatment levels show that other changes should be made to the permit applications then those will be prepared under this task.

Task 5 - Update Water Quality Modeling as necessary

Engineer will develop a water quality modeling plan if COREMIX or other extensive modeling is required based on the results of the alternative brine management strategy investigation and feasibility study to make revisions to the modeling based on discussions with TCEQ, subcontracted consultants or other Authority consultants.

Engineer will review design and placement of outfall and diffuser configurations to obtain maximum dilutions at various seasonal and discharge conditions, if necessary. Detailed design modifications are outside of the scope of this task and budget.

If the Selected Brine Management Strategy affects the current discharge scenario presented in the application, updated simple modeling efforts will be conducted under this task and provided to TCEQ. If the current RO reject discharge is significantly reduced or eliminated, then modeling will need to be updated and provided to TCEQ. In addition, if the discharge volume and concentrations change significantly, the outfall and diffuser configurations may also need updating to obtain the maximum dilutions. Detailed modeling and design modifications is outside the scope of this task and budget.

Task 6 - Review Draft and Final Permits

Engineer will review TCEQ TexTox Wastewater Discharge limit calculations and compare to expected discharge levels.

Engineer will review draft and final permit for Authority's La Quinta Desalination Facility.

Engineer will evaluate potential whole effluent toxicity requirements and ability to meet those limits.

Engineer will also identify any potential permit issues related to expected treatment levels.

Engineer will attend various meetings with Authority, TCEQ and any Authority designee as needed to obtain a final proposed permit for public notice.

Engineer will review the TCEQ draft and final permits in addition to the “fact sheets” and various agency memos that are prepared to accompany the draft and final permits. Engineer will provide detailed comments to Authority related to any items that we feel need to be corrected or that do not represent the topic thoroughly enough to withstand permit hearing scrutiny. This review will also include the TCEQ TexTox toxicity permitting program tool and whole effluent toxicity testing requirements.

Schedule

Task / Deliverable	Due
Anti-degradation Review and Memo	February 12, 2021
Mud Lakes Feasibility and Treatability Study Technical Report	April 30, 2021
Update Water Quality Modeling as necessary	May 7, 2021
Alternative Brine Disposal Evaluation Report	May 15, 2021
Updated Permit Discharge and Technical Information based on Alternative Evaluation	May 28, 2021
Review Draft and Final Permits	TBD

Project Team

For this project the team will consist of the following individuals.

Employee Name	Title
Tom Wilshusen, P.E.	Senior Project Manager
Randy Palachek,	Technical Manager
Keith Ganze, P.E.	Senior Project Manager
Steven Manning, P.E.	Principal Engineer
Dr. Kirk Dean, P.E.	Project Manager
Les Cordone	Technical Manager
Jamie Fettig	Senior Project Manager
Dr. Ted Schoenberg	Principal Engineer

EXHIBIT B

FEE SCHEDULE

The Engineer will perform the Services described in Exhibit A in accordance with the terms and conditions of this Contract on an hourly fee basis; provided, however, that the total fee for services rendered under this Agreement will not exceed \$149,000 without Authority's written approval. Services provided by Engineer will be billed as specified in Exhibit B. These fees will cover all of Engineer's overhead costs, including but not limited to, office rent, long distance telephone charges, postage, payroll and copying charges.

The Authority agrees to reimburse the Engineer for certain authorized and approved travel expenses incurred by the Engineer during the Term and directly resulting from the Engineer's performance of the Services under this Contract.

Authority will also reimburse the Engineer for Direct Costs incurred by the Engineer in performing the Services. The Engineer shall submit proper documentation of any such approved travel expenses and Direct Costs to Authority from time to time, and such costs and expenses shall be billed to Authority at Engineer's actual cost.

Not later than the twentieth (20th) day of each calendar month, Engineer shall submit to Authority detailed invoices for all services performed and Direct Costs incurred, if any, pursuant to this Agreement during the prior calendar month. The invoices shall describe the Services performed during the prior month, -approved Direct Costs, milestone achievements, and tasks performed or completed. Authority shall review the invoices and notify Engineer in writing (including email) within twenty (20) days of any disputed amounts.

Should this Contract be terminated for any reason, the Engineer will be paid all fees earned up to the termination date and any approved direct expenses incurred.

Attachment to Exhibit B

Rate Sheet

Classification	Hourly Rate
Project Managers	
Principal project manager/Technical manager	\$239.57
Senior project manager	\$209.42
Project manager	\$186.18
Engineers	
Senior supervising engineer	\$209.42
Supervising engineer	\$193.69
Principal engineer	\$175.90
Senior engineer	\$136.09
Engineer	\$113.82
Associate engineer	\$94.48
Scientists	
Supervising scientist	\$180.89
Principal scientist	\$143.46
Senior scientist (GIS)	\$124.71
Scientist	\$99.63
Associate scientist	\$85.44
Technical and Support Specialists	
Supervising specialist	\$115.49
Project controls specialist	\$97.14
Senior specialist I	\$73.61
Admin specialist III	\$63.87
Specialist I	\$50.09

EXHIBIT C

INSURANCE

Without limiting the indemnity obligations or liabilities of Engineer or its insurers, provided herein, Engineer agrees to carry and maintain at its sole expense policies of insurance ("the Policies") of the types and in the minimum amounts as follows:

	<u>TYPE OF INSURANCE</u>	<u>LIMITS OF LIABILITY</u>
A.	Workers' Compensation	Statutory
B.	Employer's Liability	\$1,000,000 per Occurrence \$1,000,000 Aggregate
C.	Commercial General Liability	\$1,000,000 per Occurrence \$2,000,000 Aggregate

The CGL Policy will provide contractual liability coverage at the aforementioned limits.

D.	Business Automobile Liability	\$500,000 per Occurrence
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Automobile liability insurance coverage will include all owned, non-owned, and hired vehicles.

E.	Professional Liability	\$1,000,000
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Engineer will procure and maintain professional liability insurance for protection from claims arising out of performance of its Services under this Contract caused by any error, omission, or act for which the Engineer is legally liable. Policies written on a claims-made basis shall have an extended reporting period of at least two (2) years beyond termination of the Contract.

Each policy, except Professional Liability, must contain an endorsement to the effect that the issuer waives any claim or right of subrogation to recover against the Authority, its Port Commissioners, officers and employees ("Authority Parties"). Additionally, the Authority Parties shall be designated as an Additional Insured either by a blanket additional insured or a specific endorsement on all policies, except for Worker's Compensation, Employer's Liability, and Professional Liability. In the event that the work of Engineer's employees fall within the purview of the United States Longshoremen's and Harbor Workers' Compensation Act, the Jones Act or the Federal Employer's Liability Act, Engineer shall extend its insurance coverage to provide insurance against the liabilities imposed under the applicable Act or Acts.

Each policy, except Workers' Compensation and Professional Liability, must contain an endorsement that the policy is primary to any other insurance available to the Additional Insureds with respect to claims arising under this Contract.

Without limiting any of the other obligations or liabilities of Engineer, Engineer shall require each Subcontractor performing work under the Contract, at Subcontractor's own expense, to maintain during the term of the Contract, the same stipulated minimum insurance as shown herein. As an alternative, Engineer may include its Subcontractors as additional insureds on its own coverage as prescribed under these requirements. Engineer's certificate of insurance shall note in such event that Subcontractors are included as additional insureds and that Engineer agrees to provide workers' compensation for Subcontractors and their employees. Engineer shall obtain and monitor the certificates of insurance from each Subcontractor in order to assure compliance with the insurance requirements. Engineer must retain the certificates of insurance for the duration of the Contract plus five (5) years and shall have the responsibility of enforcing these insurance requirements among its Subcontractors. PCCA shall be entitled, upon request and without expense, to receive copies of these certificates.

The minimum insurance required may be increased periodically upon request by Authority to commercially reasonable limits. The company writing each of the Policies must possess a current rating with A.M. Best Company of at least "A-, VII".

Engineer's liability shall not be limited to the specified amounts of insurance required herein.